

## Subpart 61.10—Tests and Inspections of Pressure Vessels

### § 61.10-1 Scope.

All pressure vessels aboard ships, mobile offshore drilling units, and barges are subject to periodic inspection.

[CGD 68-82, 33 FR 18890, Dec. 18, 1968, as amended by CGD 73-251, 43 FR 56801, Dec. 4, 1978; CGD 95-012, 60 FR 48050, Sept. 18, 1995]

### § 61.10-5 Pressure vessels in service.

(a) *Basic requirements.* Each pressure vessel must be examined or tested every 5 years. The extent of the test or examination should be that necessary to determine that the pressure vessel's condition is satisfactory and that the pressure vessel is fit for the service intended.

(b) *Internal and external tests and inspections.* (1) Each pressure vessel listed on the Certificate of Inspection must be thoroughly examined externally every 5 years.

(2) In addition, each pressure vessel listed on the Certificate of Inspection that is fitted with a manhole or other inspection opening so it can be satisfactorily examined internally, must be opened for internal examination every 5 years.

(3) No pressure vessel need be hydrostatically tested except when a defect is found that, in the marine inspector's opinion, may affect the safety of the pressure vessel. In this case, the pressure vessel should be hydrostatically tested at a pressure of  $1\frac{1}{2}$  times the maximum allowable working pressure.

(c) *Special purpose vessels.* (1) If your vessel's Certificate of Inspection is renewed annually, the following must be examined under operating conditions at each inspection for certification: all tubular heat exchangers, hydraulic accumulators, and all pressure vessels used in refrigeration service.

(2) If your vessel's Certificate of Inspection is renewed less often than annually, the following must be examined under operating conditions twice every 5 years: all tubular heat exchangers, hydraulic accumulators, and all pressure vessels used in refrigeration service.

(3) No more than 3 years may elapse between any examination and its immediate predecessor.

(d) *Hydrostatic tests under pressure.* Each pressure vessel, other than one exempted by this section, must be subjected to a hydrostatic test at a pressure of  $1\frac{1}{4}$  times the maximum allowable working pressure twice within any five-year period, except that no more than three years may elapse between any test and its immediate predecessor.

(e) *Exemptions from hydrostatic tests.* The following pressure vessels will not normally be subjected to a hydrostatic test:

- (1) Tubular heat exchangers.
- (2) Pressure vessels used in refrigeration service.
- (3) Hydraulic accumulators.
- (4) Pressure vessels which have been satisfactorily examined internally by a marine inspector and in which no defects have been found which impair the safety of the pressure vessel.

(5) Pressure vessels which were initially pneumatically tested in accordance with part 54 of this subchapter.

(6) Pressure vessels not stamped with the Coast Guard Symbol.

(f) *Compressed gas or hazardous liquid pressure vessel tests.* Cargo tanks of pressure vessel configuration containing liquefied, compressed gases or hazardous liquids must be inspected and tested as required by the applicable regulations published in subchapter D or subchapter I of this chapter.

(g) *Bulk storage tanks.* Each bulk storage tank containing refrigerated liquefied CO<sub>2</sub> for use aboard a vessel as a fire-extinguishing agent shall be subjected to a hydrostatic test of  $1\frac{1}{2}$  times the maximum allowable working pressure in the tenth year of the installation and at ten-year intervals thereafter. After the test, the tank should be drained and an internal examination made. Parts of the jacket and lagging on the underside of the tank designated by the marine inspector must be removed at the time of the test so the marine inspector may determine the external condition of the tank.

(h) *Pneumatic tests.* (1) Pressure vessels that were pneumatically tested before being stamped with the Coast